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EXAMINER	
HOLLOWAY, JASON R	

ART UNIT	PAPER NUMBER
3633	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,144	MCKINLAY ET AL.	
	Examiner	Art Unit	
	JASON HOLLOWAY	3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 August 2009* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The previous claim, specification and drawing objections are withdrawn in light of Applicant's amendments.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 1, the newly added limitations “open center" and “perpendicular risers” and “a frame having a uniform cross-sectional profile” are not described in the specification and it is not clear from the drawings what these limitations are. Claims 1-14 depend from rejected claim 1 and therefore carry the same deficiency. Accordingly, the claims will be examined “as best understood.”

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. It is unclear what is meant by the “open center” limitation newly added to claim 1. It is unclear how this limitation differentiates the prior art from the instant claims since the specification or drawings do not clearly describe what is meant by the “open center" limitation. Based on the remarks provided with this amendment, It appears the applicant is referring to the lack of a closure section in the panel mounting sections, The examiner will examine this claim limitation based on the assumption that the applicant is referring to the lack of a closure section in the panel mounting sections with the newly added claim limitation of an "open center."

6. In claim 1, it is unclear how the applicant asserts the frames have a “uniform cross sectional profile.” The cross sectional view of figure 3 of the frame does not appear to be uniform. The examiner will examine the claim under the assumption the applicant intends to claim the stepped mounting sections are uniformly spaced.

7. Claims 1-14 depend from rejected claim 1 and therefore carry the same deficiency. Accordingly, the claims will be examined “as best understood.”

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-5 and 13-15, as best understood, and claims16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crandell (6,886,297) in view of Guhl (6,055,783).

Regarding claim 1, Crandell teaches a substantially planar insulating panel comprising:

a rigid frame defining a continuous periphery of the panel (sash frame 25 of figure 1 is continuous in the final product);

a first wall (sheet 120) retained by the frame and a second wall spaced from and opposing (sheet 124 is spaced from and opposing to wall 120) the first wall and together with the first wall and the frame defining an enclosed internal space of the panel (as illustrated in figures 6A and 6b); and

at least one intermediate insulating wall (sheet 122 of figures 6A and 6B) disposed in the internal space spaced from and intermediate the first and second wall members to create a first enclosed space in the internal space between the intermediate insulating wall and the first wall and a second enclosed space in the internal space between the intermediate insulating wall and the second wall (as illustrated in figures 6A and 6B, two internal spaces are formed by the three sheets 120, 122 and 124), wherein the intermediate insulating wall (122) insulates the first wall (120) from the second wall (124) (by definition, sheet 122 is an insulating wall between the two outer walls);

wherein the frame has a uniform cross-sectional profile forming (the examiner construes from figures 6A and 6B the sash has a uniform cross section inasmuch as the

instant application's frame has a uniform cross section since the stepped sections of Crandell are distributed uniformly from one another) a series of parallel, spaced apart mounting surfaces (grooves 114, 116 and 118 of figures 6A receive and retain the sheets and are parallel to one another) arranged about an inner periphery of the frame in a stepwise manner connected by substantially perpendicular risers (the stepped mounting surfaces are connected by perpendicular rising portions in figures 6A and 6B), the mounting surfaces receiving and retaining the walls thereon and arranged in a cascading series such that the areas of the walls diminish sequentially in one direction from one side of the panel to the other and the walls are sequentially spaced apart from each other (as illustrated in figures 6A and 6B, the walls are arranged in a cascading style as claimed by Applicant), the parallel, spaced apart mounting surfaces enabling walls with sequentially larger areas to be inserted into the frame one after another (this is exactly how the walls of Crandell are installed).

However, Crandell fails to explicitly disclose the frame having an open center. Although it is not entirely clear what is meant by the limitation "open center" since the limitations seems to be defined in the arguments to the first office action only, it appears Guhl meets this newly added limitation. Guhl illustrates in figure 3 an insulated glass unit in which the walls are inserted into the completed frame without need for further steps (see column 1 line 60 to column 2 line 20).

Therefore, from the teaching of Guhl, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connection

system of Crandell to include the sash system of Guhl in order to make the installation process of the glass walls simpler.

Regarding claim 2, the combination of Crandell and Guhl teaches the frame is a unitary structure formed of a series of linear segments which are miter jointed to form a continuous profile having no mechanical start or end point (column 5 lines 37-42 of Crandell teaches a unitless window sash which is connected using mitered corners; as illustrated in figures 1, 3 and 7, there are four linear segments).

Regarding claim 3, the combination of Crandell and Guhl teaches the miter joints in the frame are welded (column 2 lines 25-29 of Crandell teach the sash member ends can be welded).

Regarding claim 4, the combination of Crandell and Guhl teaches the frame profile in section has at least one cavity capable of retaining a moisture-absorbent desiccant material (column 6 line 66 to column 7 line 7 of Crandell teaches a desiccant material can be placed between the panels 120 and 122; Guhl teaches a desiccant material disposed within a cavity of the frame as well via desiccant material 60 of figure 4).

Regarding claim 5, the combination of Crandell and Guhl teaches the cavities are able to be sealed prior to welding of the frame (the combination of Crandell and Guhl are capable of meeting this intended use limitation, thus the claim limitation is met. Further, it would have been obvious to one of ordinary skill in the art to seal the cavity prior to welding the frame in order to prevent impurities from the welding process from entering the cavity and contaminating the panels).

Regarding claim 13, Crandell teaches the frame is formed from a thermal plastics material (column 8 lines 3-21 and 44-47 teach a plastic sash can be used to improve thermal performance).

Regarding claim 14, Crandell teaches the walls are of glass or thermal plastics planes (column 1 lines 6-10 teaches glass sheets).

Regarding claim 15, Crandell teaches method for constructing a substantially planar insulating panel including a frame in which is disposed two walls defining an internal space (as illustrated in figures 6A and 6B, a frame is provided with walls which provide an internal space);

the internal space including at least one internal insulating wall (sheet 122) which insulates the two outer walls (120 and 124) thereby reducing or eliminating condensation on the outer walls of the frame;

the method comprising the steps of:

a. providing two walls (120, 124) of a predetermined size (the examiner construes since the walls are required to fit into a frame, the wall sizes are predetermined);

b. providing an insulating wall member (sheet 122 is provided);

c. constructing a peripheral frame (sash frame 25 of figures 1, 3 and 7) having a series of spaced mounting surfaces which receive and retain the walls and insulating wall member (grooves 114, 116 and 118 of figure 6A receive and retain the sheets), the mounting surfaces arranged in a cascading series such that the areas of the walls diminish sequentially in one direction from one side of the panel to the other and the

walls are sequentially spaced apart from each other (as illustrated in figures 6A and 6B, the walls are arranged in a cascading style as claimed by Applicant).;

d. fitting the first, second and insulating walls in an opposing relationship to the inner mounting surfaces (grooves 114, 116 and 118 of figures 6A) of the frame 9as illustrated in figures 6A and 6B.

However, Crandell fails to explicitly disclose a continuous peripheral frame retains the wall sections since the wall sections are placed in the frame prior to the framing members being joined in a continuous manner.

Guhl illustrates in figure 3 an insulated glass unit in which the walls are inserted into the completed frame without need for further steps (see column 1 line 60 to column 2 line 20).

Therefore, from the teaching of Guhl, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connection system of Crandell to include the sash system of Guhl in order to make the installation process of the glass walls simpler by negating the step of having to push the framing members together once the panels are placed. This system would also reduce the possibility of human or machine error when closing the frame sections together since the potential for breaking the wall panels would be greatly reduced.

Regarding claim 16, Crandell teaches the further step of placing the insulating wall member at an optimum spacing and equidistant from the first and second walls (figures 6A and 6B illustrated sheets which are equidistant from one another, the examiner construes this spacing is optimal).

Regarding claim 17, Crandell teaches the mounting surfaces are parallel and spaced apart from each other and connected by substantially perpendicular risers. (the stepped mounting surfaces are connected by perpendicular rising portions in figures 6A and 6B).

Regarding claim 18, Crandell teaches the frame comprises a series of linear segments miter jointed together to form the continuous peripheral frame prior to the fitting of the walls to their respective mounting surfaces ((column 5 lines 37-42 teach a unitless window sash which is connected using mitered corners; as illustrated in figures 1, 3 and 7).

Regarding claim 19, Crandell teaches the linear segments have a uniform cross-sectional profile (the examiner construes from figures 6A and 6B the sash has a uniform cross section inasmuch as the instant application's frame had a uniform cross section).

Regarding claim 20, the combination of Crandell and Guhl teaches fitting the walls to their respective mounting surfaces comprises introducing an adhesive between the mounting surface and corresponding wall (sealants 46, 48, 50, 52 and column 4 lines 6-13 of Guhl).

10. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crandell (6,886,297) in view of Guhl (6,055,783) and further in view of Roche (6,401,399).

Regarding claim 6, the combination of Crandell and Guhl teaches a desiccant material to absorb moisture is disposed in the system and Guhl teaches a perforation

(via hole 61 of Guhl) which can aid in the absorption of moisture between the frame and an enclosed space. However, the combination of Crandell and Guhl fails to explicitly disclose the frame profile in elevation has perforations (slots 24b) located between the mounting surfaces (21a) such that the cavities (hollow bodies 24) are in communication with the first and/or second enclosed spaces, such that the perforations allow for the absorption of moisture only from an apposing enclosed space (as illustrated in figure 3; column 5 lines 35-42).

Roche teaches a frame profile for a refrigerator in which in elevation has perforations (slots 24b of figure 3) located between the mounting surfaces (21a) such that the cavities (hollow bodies 24) are in communication with the first and/or second enclosed spaces, such that the perforations allow for the absorption of moisture only from an apposing enclosed space (as illustrated in figure 3; column 5 lines 35-42).

Therefore, from the teaching of Roche, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the moisture absorption feature of the combination of Crandell and Guhl to include perforations like those shown in Roche in order to permit any moisture inside the air spaces between adjacent frame sections to enter the hollow interior and be adsorbed by the desiccant.

Regarding claim 7, the combination of Crandell and Guhl teaches the frame profile in section has cavities (56 of Guhl) capable of providing insulation (cavities 56 are capable of this function and therefore meet the limitations of the claim).

Regarding claim 8, the combination of Crandell Guhl and Roche teaches the walls are affixed to the mounting surfaces using an adhesive bonding (sealants 46, 48, 50, 52 and column 4 lines 6-13 of Guhl).

However, the combination of Crandell Guhl and Roche fails to disclose the adhesive is rigid or semi-rigid and has either ultraviolet-setting or thermo-setting properties.

It would have been obvious to one of ordinary skill in the art to use an adhesive as claimed by applicant since the adhesive types as claimed are an obvious design choice and well known in the art.

11. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crandell (6,886,297) in view of Guhl (6,055,783) and further in view of Roche (6,401,399) and further in view of Richardson et al. (5,910,083).

Regarding claim 9, the combination of Crandell Guhl and Roche teaches the walls are affixed to the mounting surfaces with an adhesive (via adhesive 46, 48, 50, and 52 of Guhl).

However, the combination of Crandell Guhl and Roche fails to disclose mounting surfaces have one or more recesses which act as traps for any excess adhesive used in affixing the walls.

Richardson teaches a spacer for a refrigerator door having a recess (ridge 104) that acts as a trap for excess adhesive (column 8 lines 61-67).

Therefore, from the teaching of Richardson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wall receiving

surfaces of the combination of Crandell Guhl and Roche to include a ridge for recess as disclosed by Richardson in order to provide a passage for excess adhesive to travel.

Regarding claim 10, the combination of Crandell Guhl and Roche teaches the first and/or second enclosed spaces are sealed and filled with air, argon gas, foam or another insulating material (Crandell teaches the spaces can be filled with argon, air and krypton).

Regarding claim 11, the combination of Crandell Guhl and Roche teaches the frame includes a gasket-retaining groove (via flexible magnetic strip holder 20 of Roche) capable of retaining a magnetized flexible sealing gasket which provides an airtight seal between the panel and an article to which the panel is fitted (as described in column 4 lines 57-65).

Regarding claim 12, the combination of Crandell Guhl and Roche teaches the frame profile includes a keyway for insertion and mounting of a hinge (as illustrated in figures 8, 9 and 9A of Roche, the examiner construes a keyway via hinge pin 40 and the opening therefore is provided for the hinge connection).

Response to Arguments

12. Applicant's arguments with respect to claims 1 and 15 have been considered but are moot in view of the new grounds of rejection.

Conclusion

13. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HOLLOWAY whose telephone number is (571) 270-5786. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JASON HOLLOWAY
Examiner
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